発明の属する分野の分類(国際特許分類(IPC))

Int. Cl' H01L51/00, H01L29/66, H01L29/06, B82B1/00

### 調査を行った分野

調査を行った最小限資料(国際特許分類(IPC))

Int. Cl' H01L51/00

## 最小限資料以外の資料で調査を行った分野に含まれるもの

日本国実用新案公報

1922-1996年

日本国公開実用新案公報

1971-2004年

日本国実用新案登録公報

1996-2004年

日本国登録実用新案公報

1994-2004年

国際調査で使用した電子データベース (データベースの名称、調査に使用した用語)

#### C. 関連すると認められる文献

o. Mach a chart but a				
引用文献の カテゴリー*	引用文献名 及び一部の箇所が関連するときは、その関連する箇所の表示	関連する 請求の範囲の番号		
77-7	が一人的名 次の 時の間が、例とすることは、この例とする国がの数が	日日イベン単位にロップ語で		
X	US 2002/0114557 A1	.9, 19		
	(Xiao-An ZHANG)	ļ		
A	2002.08.22,全文,第1-6図	1-8, 10-18, 20		
	& JP 2003-209305 A, 全文, 第1-6図			

C欄の続きにも文献が列挙されている。

□ パテントファミリーに関する別紙を参照。

- \* 引用文献のカテゴリー
- 「A」特に関連のある文献ではなく、一般的技術水準を示す もの
- 「E」国際出願日前の出願または特許であるが、国際出願日 以後に公表されたもの
- 「L」優先権主張に疑義を提起する文献又は他の文献の発行 日若しくは他の特別な理由を確立するために引用する 文献(理由を付す)
- 「〇」口頭による開示、使用、展示等に言及する文献
- 「P」国際出願日前で、かつ優先権の主張の基礎となる出願

- の日の後に公表された文献
- 「T」国際出願日又は優先日後に公表された文献であって 出願と矛盾するものではなく、発明の原理又は理論 の理解のために引用するもの
- 「X」特に関連のある文献であって、当該文献のみで発明 の新規性又は進歩性がないと考えられるもの
- 「Y」特に関連のある文献であって、当該文献と他の1以 上の文献との、当業者にとって自明である組合せに よって進歩性がないと考えられるもの

電話番号 03-3581-1101 内線 3496

「&」同一パテントファミリー文献

国際調査を完了した日 国際調査報告の発送日 30. 3. 2004 17.03.2004 特許庁審査官(権限のある職員) 国際調査機関の名称及びあて先 4 L 9277 日本国特許庁(ISA/JP) 宮崎 園子 郵便番号100-8915

東京都千代田区霞が関三丁目4番3号

# INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP03/16819

A. CLASSIFICATION OF SUBJECT MATTER Int.Cl <sup>7</sup> H01L51/00, H01L29/66, H01L29/06, B82B1/00			
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According t	to International Patent Classification (IPC) or to both r	national classification and IPC	
	S SEARCHED		
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Japar	tion searched other than minimum documentation to the nesse Utility Model Publication. Ga:	ne extent that such documents are included zette 1922–19	in the fields searched
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Japar Flectronic d	nese Utility Model Registration Grant base consulted during the international search (name	azette 1994-20	)Ŏ4
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C. DOCU	MENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where a	nomorate of the relevant naccares	D. Janes de Jain No
X	US 2002/0114557 A1 (Xiao-An		Relevant to claim No.
A	22 August, 2002 (22.08.02),	ZHANG),	9,19 1-8,10-18,20
-	Full text; Figs. 1 to 6	!	1-0,10-10,20
	& JP 2003-209305 A	!	
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Furth	er documents are listed in the continuation of Box C.		
		See patent family annex.	
"A" docum	categories of cited documents: ent defining the general state of the art which is not	"T" later document published after the inter priority date and not in conflict with th	mational filing date or
conside	ered to be of particular relevance document but published on or after the international filing	understand the principle or theory under	erlying the invention
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"L" docume	ent which may throw doubts on priority claim(s) or which is establish the publication date of another citation or other	step when the document is taken alone	
special	reason (as specified)	considered to involve an inventive step	when the document is
means	ent referring to an oral disclosure, use, exhibition or other	combined with one or more other such combination being obvious to a person	documents, such skilled in the art
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Date of the a	actual completion of the international search	Date of mailing of the international searc	h renort
17 M	arch, 2004 (17.03.04)	30 March, 2004 (30.	03.04)
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Name and mailing address of the ISA/		Authorized officer	47 /0077
Japanese Patent Office		Examiner, Patent Office	4L/9277
Facsimile No.		Telephone No.	=

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## INTERNATIONAL SEARCH REPORT

International application No. PCT/JP03/16819

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A. CLASSIFICATION OF SUBJECT MATTER Int.Cl <sup>7</sup> H01L51/00, H01L29/66, H01	L29/06, B82B1/00				
According to International Patent Classification (IPC) or to both national classification and IPC					
B. FIELDS SEARCHED	•				
Minimum documentation searched (classification system followed by classification symbols)  Int.Cl <sup>7</sup> H01L51/00					
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  Japanese Utility Model Publication Gazette  Japanese Utility Model Laid Open Gazette  Registered Utility Model Specification  Japanese Utility Model Registration Gazette  1994-2004					
Electronic data base consulted during the international search (na	me of data base and, where practicable, search terms used)				
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C. DOCUMENTS CONSIDERED TO BE RELEVANT					
Category* Citation of document, with indication, where a					
X US 2002/0114557 A1 (Xiao-An A 22 August, 2002 (22.08.02), Full text; Figs. 1 to 6 & JP 2003-209305 A Full text; Figs. 1 to 6	ZHANG), 9,19 1-8,10-18,20				
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Further documents are listed in the continuation of Box C.	See patent family annex.				
* Special categories of cited documents:  "A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention				
"E" earlier document but published on or after the international filing date  "L" document which may throw doubts on priority claim(s) or which is	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone				
cited to establish the publication date of another citation or other special reason (as specified)  "O" document referring to an oral disclosure, use, exhibition or other	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such				
means  "P" document published prior to the international filing date but later than the priority date claimed	combination being obvious to a person skilled in the art document member of the same patent family				
Date of the actual completion of the international search 17 March, 2004 (17.03.04)	Date of mailing of the international search report 30 March, 2004 (30.03.04)				
Name and mailing address of the ISA/	Authorized officer 4L/9277				
Japanese Patent Office	Examiner, Patent Office				
Facsimile No.	Telephone No.				

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